



UNIVERSITI PUTRA MALAYSIA

**INFORMATION-SEEKING STRATEGIES AMONG POTATO
FARMERS IN WEST JAVA, INDONESIA**

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**INFORMATION-SEEKING STRATEGIES AMONG POTATO FARMERS
IN WEST JAVA, INDONESIA**

By

PENNY ISMIATI ISKAK

**Thesis Submitted to the School of Graduate Studies,
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in partial fulfilment of the requirements for the Master of Science

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October 2005

Chairman : Professor Musa Abu Hassan, PhD

Faculty : Modern Languages and Communication

The increase in potato demand, a devaluation of Indonesian currency in 1997, and good quality of potatoes for curry created opportunities for Indonesian potato farmers to export their product. However, the export volume of fresh potatoes continues to decrease, while the import volume of processed product increases. Due to lack of information on the desired quality attributed by the consumer, the farmers are unable to meet consumer demand. Therefore, the aim of the study is to understand information-seeking behaviour among potato farmers.

The study used a survey design and structured questionnaire as a means to gather data. A total of 301 respondents were selected using stratified random sampling from 1120 members of farmers' groups in central potato production of Pangalengan, West Java, Indonesia. Data were analysed using Statistical Package for Social Science (SPSS version 11.5).

Statistical analysis used in the study was descriptive statistics and Spearman rank correlation.

The results revealed that market information was the type of information that the respondents needed most, followed by that on input, technologies, loans, climate, and regulations related to potato farming system. Therefore, they sought the market information more frequently than the input, technology, loan, climate, and regulation information.

The findings showed that to acquire information, the respondents used interpersonal sources more frequently than electronic and print media. They perceived that interpersonal sources of information are more credible than print and electronic media. Meanwhile, the respondents made contacts with family, friends, and neighbours more frequently than progressive farmers, input traders, middle traders, extension agents, personnel of FSF/SSF, agricultural researchers, and staff of village cooperative (KUD). To obtain information from the sources, the respondents used the monitoring strategy more frequently than the inquiry strategy. Conversely, they engaged most in the inquiry strategy when acquiring information from extension agents; progressive farmers; agricultural researchers; input traders; and family, friends, and neighbours.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia
sebagai memenuhi sebahagian keperluan untuk mendapatkan ijazah
Master Sains

**STRATEGI PENCARIAN MAKLUMAT DI KALANGAN PETANI
KENTANG DI JAWA BARAT, INDONESIA**

Oleh

PENNY ISMIATI ISKAK

Oktober 2005

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Peningkatan terhadap permintaan kentang dan penurunan nilai mata wang Indonesia pada tahun 1997, dan kualiti kentang yang baik untuk kari telah mewujudkan peluang bagi peladang kentang Indonesia untuk mengeksport produk mereka. Walaupun demikian jumlah eksport menurun, sementara jumlah import meningkat. Kekurangan maklumat mengenai kualiti yang dijangkakan oleh pengguna mengakibatkan peladang tidak dapat memenuhi permintaan pengguna. Untuk berjaya memanfaatkan peluang tersebut, maklumat menjadi sangat penting bagi peladang. Oleh sebab itu, kajian ini perlu dilakukan bagi memahami amalan pencarian maklumat di kalangan peladang kentang.

Kajian dilakukan dengan menggunakan borang soal selidik yang perlu dijawab oleh responden melalui temubual secara intensif. Seramai 301

orang responden telah dipilih secara rawak berstrata untuk mewakili 1120 ahli daripada kumpulan peladang di pusat pengeluaran kentang di Pangalengan, Jawa Barat, Indonesia. Data dianalisis dengan menggunakan perisian *Statistical Package for Social Science (SPSS version 11.5)*. Hasil kajian dibentangkan dalam statistik deskriptif dan pekali korelasi Spearman.

Hasil kajian menunjukkan bahawa maklumat mengenai pemasaran kentang lebih diperlukan daripada maklumat mengenai input, teknologi, pembiayaan, cuaca, and segala peraturan yang berhubungan dengannya. Justeru, peladang mencari maklumat mengenai pemasaran lebih sering daripada maklumat mengenai input, teknologi, pembiayaan, cuaca, dan peraturan.

Dalam usaha mendapatkan maklumat, peladang lebih sering menggunakan sumber maklumat interpersonal daripada media elektronik dan cetak. Sumber interpersonal dianggap sebagai sumber maklumat yang sah berbanding media cetak dan elektronik. Responden lebih sering berhubung dengan keluarga, teman, dan tetangga untuk mendapatkan maklumat jika dibandingkan dengan peladang maju, pembekal barangan pertanian, pedagang tengah, penyuluh pertanian, kaki tangan FSF/SSF, penyelidik pertanian, dan kaki tangan koperasi desa. Secara menyeluruh, untuk mendapatkan maklumat daripada sumbernya, peladang lebih sering menggunakan strategi pemantauan dan

pemerhatian. Namun secara khususnya, peladang sering menggunakan strategi pertanyaan bila mencari maklumat daripada penyuluh pertanian, peladang maju, penyelidik pertanian, penjual barangan pertanian, dan keluarga, teman, dan tetangga .

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I certify that an Examination Committee met on 7 October 2005 to conduct the final examination of Penny Ismiati Iskak on her Master of Science thesis entitled "Information-Seeking Strategies among Potato Farmers in West Java, Indonesia" in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that the candidate be awarded the relevant degree. Members of the Examination Committee are as follows:

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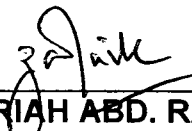
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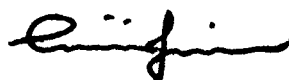
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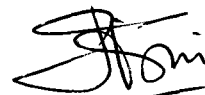
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DECLARATION

I hereby declare that the thesis is based on my original work except for quotations and citations which have been duly acknowledge. I also declare that it has not been previously or concurrently submitted for any other degree at UPM or other institutions.



PENNY ISMIATI ISKAK

Date: 22-12-2005

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LIST OF ABBREVIATION

AARD	= Agency for Agricultural Research and Development
AIAT	= Assessment Institute for Agricultural Technology
BPH	= Brown Plant Hoper
CIP-ESEAP	= International Potato Center – regional office for East, South East Asia, and the Pacific
CMC	= Computer Mediated Communication
FDA	= Food and Drug Administration
FSF	= Foundation Seed Farm
ISP	= Information Search Process
KAP	= Knowledge Attitude Practice
KUD	= Koperasi Unit Desa
NGO	= Non Government Organisation
RIV	= Research Institute for Vegetable
SSF	= Stock Seed Farm
USDA	= United States Department of Agriculture

CHAPTER I

INTRODUCTION

Background of the Study

During the monetary crisis in Indonesia, agriculture has grown tremendously and played an important role in the national economic recovery. The major obstacle faced by the agricultural sector is that the commodities have low ability to compete with those from other countries in the global market due to inefficiency and poor post harvest handling. Most of the farm products from the country are exported in the form of raw materials having little added value (AARD, 2003). To overcome the problem, the Indonesian Government has emphasized on the development of agribusiness in its long-term national development programme. In the programme, agriculture components, such as upstream and downstream industries as well as services, are developed simultaneously in harmony. Therefore, developing agribusiness is to develop competitive advantages of agricultural products based on comparative advantages through the uses of capital and innovations (Saragih, 2001).

It is expected that agriculture would continue to play a more significant role in the national economic development. To achieve the goal, farmers and policy makers should be responsive to the changes in the strategic

environment at global and domestic levels. The global environment includes trade liberalisation and globalisation, while domestic conditions include reformation spirits that shift the social structure and paradigm of agricultural development (AARD, 2003).

Agriculture covers food crops, horticulture, animal husbandry, fisheries, forestry, and estate crops. Horticultural commodities, especially vegetables, contribute significantly to the Indonesian economy as a source of high-value nutritious food, income, employment and business opportunity, agro-industrial raw materials, and foreign exchanges. Additionally, horticultural agribusiness is an important market for non-agricultural goods and services, namely fertilisers, pesticides, agricultural equipment, and transportations (Hadi, 2001).

Among vegetables commercially grown in Indonesia, potatoes are more profitable than onions, red chillies, and cabbages (Van de Fliert, 1998; Saptana et al., 2001). Potatoes were first introduced by the Dutch around 1794 (Tatik, 1983 as cited by Rhoades, Hijmans, and Huaccho, 2002). The production of potatoes has grown rapidly over the past several decades. The major potato production areas are concentrated in West Java, North Sumatra, Central Java, East Java (Chujoy et al., 1999), and South Sulawesi (Saptana et al., 2001).

Nowadays Indonesia has become the largest potato producer in Southeast Asia (Adiyoga, Suherman, and Fuglie, 1999). According to CIP-ESEAP (2004), from 1969 to 2002, the average contribution of Indonesian potatoes was 41 percent per year of the total production in Southeast Asia. In the same period, the average growth of potato production was more than 10.36 percent per year. By mid of 1990s, the total annual production exceeded 1 million tons. Adiyoga et al. (1999) stated that the growth of potato production was caused by an increase in potato planted areas and yield improvement.

Indonesia exports potatoes to Malaysia (70 percent of the total export) and Singapore (30 percent of the total export) as fresh table potatoes (Adiyoga, Fuglie, and Suherman, 2001). Furthermore, Adiyoga et al. (2001) mentioned that export-import of potatoes from 1981 to 1995 indicated that Indonesia was an exporter country for fresh table potatoes, with the average growth of potato export value of 127 percent. In the same period, the average growths of import value for potato seed and potato products were 43 percent and 74 percent, respectively.

In the period of 1996 to 2000, however, the export volume of fresh table potatoes decreased from 103 thousand tons per year (1995) to 31 thousand tons per year (2000). In contrast, the processed potato import increased from 13 thousand tons per year (1995) to 20 thousand tons per year (2000) indicating a shift of a status from an exporter to an importer

country. As the export volume decreased, the market share of potato importation by Malaysia and Singapore also decreased from 50 percent (1995) to 20 percent (2000).

The increase in popularity of American-style fast food restaurants in urban centers of Southeast Asia imposed the increase in processed potato demand. The demand on processed potatoes is estimated to continue to grow with the annual growth of about 10 to 20 percent (Fuglie, Suherman, and Adiyoga, 2002). Moreover, most of the demand for processed potatoes is likely to meet through the import from temperate countries because local varieties are not suitable for processed potatoes due to high moisture and sugar content (Adiyoga et al., 2001). The increase in processed potato demand would be followed by the increases in the import of the processed potatoes.

Thus, the increase in competition from other exporters, especially that from temperate countries, such as China and the Netherlands caused the decline in the export volume of potatoes. In 1999, Indonesia, China, Australia/New Zealand, and European countries had an equal market share (25 percent) in the Singapore potato market. In this year, exporters from China and Netherlands offered potatoes at lower prices than that offered by Indonesian exporters. Another causal factor was that potatoes from Indonesia also showed some disadvantages, such as: 1) small in size, while the consumers demand large size, 2) improperly cleaned and

poorly packed, and 3) the presence of worms and diseases (Adiyoga et al., 2001).

These evidences indicated a failure to meet consumer demand because of lack of information on the market potency. In this situation information related to potato farming system is gaining importance. Timely market information on domestic and international potato prices and trading opportunities reduces the transaction costs of potato marketing (Adiyoga et al., 2001). Better information on the desired quality of potatoes attributes by consumers in markets helps the farmers meet the market demand.

According to Harun (2001) and Irawan et al. (2001), extension agents who were regarded as one of the major factors in dissemination of agricultural information and technologies, often provided out of date technical information. Moreover, Rohmani (2001) stated that work performance of skilled extension agents only 40.66 percent of total performance based on State Minister of Administrative Reform Decree No 19/Kep/MK Waspan/5/1999. The findings indicate a need to construct a more effective communication approach to accelerate dissemination of agricultural information and technologies.